This must be admitted though I saw Heer's types of *lanceolata* at Zurich and they are strikingly similar to our Laramie plant from Marshall, Colo. Knowlton states that the name *navicularis* should be applied to the American species but unfortunately it was founded exclusively on Heer's plant, his name being a homonym. The Laramie plant (type from Marshall) described as *navicularis* by Knowlton may stand as **F. Knowltoni** n. n.

The cryptogamic plants are represented by quite a series of ferns, some of them striking forms, a single imperfectly known *Equisetum*, and an algal form which Lesquereux called *Delesseria fulva*. This last cannot be referred to any particular genus and should be consigned to Seward's blanket genus *Algites* or better rejected as indeterminate. Standing as a *Delesseria* it will be taken as evidence of marine conditions.

Conifers are poorly represented, doubtless owing to the conditions in the locality. The fragments of *Sequoia* etc., as the author suggests, may have been washed from higher ground. We must not forget that there was doubtless an upland flora, very distinct from that of the swampy region, of which we cannot expect to recover more than small fragments.

T. D. A. Cockerell.

VON TUBEUF: MONOGRAPHIE DER MISTEL*

It is not often that the reviewer has before him a monograph as complete in every detail as this one on the mistletoe by the author of the well-known Pflanzenkrankheiten durch kryptogam Parasiten verursacht, published in 1895. The monograph is the result of many years of study and experimentation on the part of Dr. von Tubeuf of the University of Munich, who has been ably assisted by Dr. Gustav Neckel, professor in the University of Berlin and Professor Dr. Heinrich Marzell. The book in large octavo is printed attractively on glazed paper, which allows of the reproduction of the photographs and maps in the body of the text.

*Tubeuf, Karl Freiherr von: Monographie der Mistel. Mit 5 beigehefteten lithographierten Karten und mit 35 Tafeln sowie 181 Figuren im Text. Seiten xii+832. München und Berlin, 1923. Druck und Verlag von R. Oldenberg, München, Glückstrasse 8.

After a discussion of what is understood by mistletoe, the author describes the prehistoric discoveries of mistletoe in Europe. Closely associated with these finds is the documentary evidence of the ancient knowledge of the plant among the Greeks and Romans. The mistletoe in tradition and folklore should appeal to a large circle of plant lovers. The employment of the plant as bird lime is described, as also its use as fodder by wild and domesticated cattle, and as human food. Chapter 4 is devoted to the folk and botanical names of the mistletoe. Chapter 5, pages 87–364, is occupied with a detailed consideration of the geographical distribution throughout Europe.

Part II is concerned with the Morphology, Physiology, Biology and Pathology of the mistletoe. Floral diagrams are given, the structure of the fruits and seeds is described, to which is appended an account of the teratology of the fruit and the germination of the seeds. The stem structure, branching, growth and the structure of the parasitic root system are given in the greatest detail. The chemistry of the plant is not neglected, as a section of fifteen pages considers that phase of the study. The nutrition of the plant comprises the interesting physiological part of the book, including the influence of the parasite on its host. The birds that are instrumental in the natural distribution of the plant are described and figured. Other birds and animals are described as agents of distribution,

The third part of the book deals with the role of the mistletoe in practical garden, orchard and forest operations and a list of the host plants is given. This practical part covers 109 pages of the book. Chapter 13 gives in detail Dr. von Tubeuf's experiments on the cultivation of mistletoe upon various host plants, and chapter 14 treats of the destruction and control of the plant parasite in garden, orchard and forest. It will be seen from the above brief description, that very little has been left undone in the study of this plant, which has interested mankind from the Druids down to the present day.

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